

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of
Chen et al.

Serial No.: **10/676,965**

Filed: **October 1, 2003**

For: **Method and Apparatus to Improve CDMA
Reverse Link Performance**

Attorney's Docket No: **4740-212**

)
) Patent Pending
)

) Examiner: Kwasi Karikari
)

) Group Art Unit: 2617
)

) Confirmation No.: 8121
)
)
)

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]

I hereby certify that this correspondence is being:

☐ deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

☐ transmitted by facsimile on the date shown below to the United States Patent and Trademark Office at (703) 273-8300.

May 6, 2008

Date

Kathy L. McDermott
Kathy L. McDermott

This correspondence is being:

☒ electronically submitted via EFS-Web

Dear Sir or Madam:

This reply brief is filed in response to Examiner's Answer mailed March 6, 2008.

Although no fees should be required, if any are, please charge them to Coats & Bennett, PLLC

Deposit Account No. 18-1167.

REPLY BRIEF UNDER 37 CFR 41.41(a)(1)

(I.) STATUS OF CLAIMS

Claims 1-3, 5-12, and 14-24 are pending in this case. Claims 4 and 13 were cancelled.

Claims 1-3, 5-12, and 14-24 stand rejected and are being appealed herein.

(II.) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1, 3, 7, 10, 12, 17-19, and 22 are unpatentable under 35 U.S.C. 103(a) over U.S. Patent No. 5,625,876 (Gilhousen).

Whether claims 2, 9, 11, 16, and 24 are unpatentable under 35 U.S.C. 103(a) over Gilhousen in view of U.S. Patent No. 6,011,787 (Nakano).

Whether claims 5, 6, 8, 14, 15, 20, 21, and 23 are unpatentable under 35 U.S.C. 103(a) over Gilhousen in view of U.S. Patent Publication No. 2002/0154610 (Tiedemann).

(III.) ARGUMENT

One of the fundamental issues under consideration in the present appeal is whether Gilhousen teaches or suggests forcing always-softer reverse link handoff conditions at an RBS (radio base station) by assigning one or more additional reverse links from remaining (non-serving) sectors of the RBS. A more detailed explanation of this issue is presented in Argument sub-section (VII.)(A.)(1.)(b.) of the Appeal Brief filed December 10, 2007.

For the first time during prosecution of the present application, the Examiner's Answer explicitly equates pilot signals with "reverse links." Particularly, the fourth paragraph on page 14 of the Examiner's Answer states that "the communicating and monitoring include **signal pilots from multiple sectors** of the base station, whereby the signal pilot from multiple sectors is being associated with the assignment of the extra or additional reverse link as described in the specifically [sic]."

The Examiner alleges that extra or additional reverse link assignments are made when pilot signals are transmitted from multiple sectors of a base station to a mobile station. This is gross technical error for at least two reasons. By the Office's own admission, the pilot signals are transmitted from the base station to the mobile station. This is forward link communication in its most fundamental form, and thus has no relevancy to the assignment of extra or additional reverse links as claimed. Moreover, it is gross technical error to equate a mere signal such as

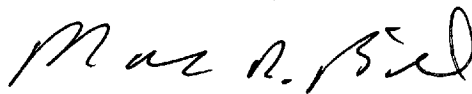
a pilot signal to an actual communication link. For at least these reasons, Applicant respectfully requests the Board to overturn all claim rejections.

In more detail, pilot symbols, whose data information is known to the receiver, are typically inserted into a signal at the transmitter. The receiver recovers the pilot symbols from the signal and uses the symbols to determine channel conditions within the wireless network. Corrective actions such as transmit power adjustment, antenna re-alignment, etc. can be taken by the transmitter based on the channel conditions observed by the receiver. Unrelated to pilot signals are reverse links. "Reverse link" is a well-recognized term of art for a communication link established from a mobile station back to a base station, i.e., in the opposite direction of the main information flow. Reverse links are used to communicate information such as channel quality data from mobile stations to base stations.

Clearly, pilot signals cannot be extra or additional reverse link assignments within the meaning of the present claimed invention as alleged in the Examiner's Answer. Pilot signals and reverse links perform different functions at different levels within a wireless communication system. A pilot is an actual signal transmitted from a base station to a mobile station in the forward link direction. The term "reverse link" does not refer to a signal or the forward link direction. Instead, the term "reverse link" refers to an actual communication link established from the mobile station to the base station over which signals may be transmitted. Thus, it is clear technical error to equate pilot signals to extra or additional reverse link assignments. Accordingly, Applicant respectfully requests the Board to overturn all claim rejections.

Respectfully submitted,

COATS & BENNETT, P.L.L.C.



Mark R. Bilak
Registration No.: 47,423
Telephone: (919) 854-1844
Facsimile: (919) 854-2084

Dated: May 6, 2008